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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,973	03/12/2004	Paul Geuvers	056409-5097	5346

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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/798,973		GEUVERS ET AL.	
	Examiner		Art Unit	
	Jennifer H. Gay		3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-35 is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/13/05, 8/27/04</u> . | 6) <input type="checkbox"/> Other: _. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “45” has been used to designate both a slot and a spring. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 53. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 44. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement

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drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 13, 15-22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Koch (DE 315601, a translation of this document is being acquired and will be provided with the next Office Action).

Regarding claims 1, 16: Koch discloses a drilling device for producing undercut holes. The drilling device includes the following features:

- A drilling tool **b** having an axis of rotation and a cutting portion **a** arranged such that the cutting portion drills a hole having a longitudinal axis that is radially offset with respect to the axis of rotation.
- A centering device **d** operable to apply a lateral force to the drilling tool for moving the axis of rotation towards the longitudinal axis to cause the cutting portion to form an undercut in the hole.

Regarding claim 2: The centering device is arranged to apply the lateral force to move the axis of rotation to a position in which it is substantially in-line with the longitudinal axis. *As shown in the figures, the centering device would force the axis of rotation of the drilling tool toward the longitudinal axis of the cutting portion as it is forced downward onto the cutting portion.*

Regarding claims 3, 21: The centering device is axially slidable along the drilling tool between a non-operative position and an operative position in which it is received in the hole.

Regarding claims 4, 5, 15, 17, 22, 25: The centering device is a tubular member mounted on the drilling tool. The tubular member is mounted for substantially non-rotational axial sliding movement relative to the axis of rotation of the drilling tool.

Regarding claims 6, 7: The tubular member has an external surface having a surface area and the external surface is relieved by at least one recess (the opening for the handle g) that extends at a 90° angle to the longitudinal axis to reduce the surface area.

Regarding claims 13, 16: The drilling tool comprises a drill shaft that defines the axis of rotation and the centering device comprises a sleeve that at least partially surrounds a portion of the drill shaft and is axially slidable relative thereto, the drilling device further comprising at least one member g connected with the sleeve by which an operator can cause the axial sliding movement of the sleeve for moving the sleeve into the hole alongside the drill shaft to apply the lateral force to the drilling tool.

Regarding claims 18, 19: The drilling device is fitted to a drilling machine (Figure 5).

Regarding claims 20, 24: Koch discloses a method of producing an undercut hole using the above drilling device. The method involves the following steps:

- Drilling a hole with a drilling tool that has a cutting portion arranged to produce a hole having a longitudinal axis that is radially offset with respect to an axis of rotation of the drilling tool.
- Applying a lateral force to the drilling tool to cause the axis of rotation to move towards the longitudinal axis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch in view of Spangenberg (US 6,022,176).

Koch discloses all of the limitations of the above claim(s) except for a making device for marking the surface in which an undercut hole is drilled.

Spangenberg discloses a method and apparatus for drilling an undercut hole.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the drilling device of Koch to include a marking device as taught by Spangenberg in order to have indicated that the undercut has been drilled (1:38-62).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch.

Koch discloses all of the limitations of the above claim(s) except for a power-assisted mechanism for the moving the centering device. Koch does teach the use of manual manipulation of the centering device. Therefore, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the manual handle of Koch with a power-assisted mechanism, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

9. Claims 10-12, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch in view of Erath (US 5,544,989).

Koch discloses all of the limitations of the above claim(s) except for the drilling device being coupled to a support device where the support device is capable of being adjusted to drill a plurality of undercut holes and includes a telescoping arrangement.

Erath discloses a support device for an undercut hole drilling device. Erath further teaches that the support device is capable of allowing multiple holes to be drilled and includes a telescoping arrangement (outer tube 11 and inner tube 3).

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It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the drilling device of Koch to include a support device such as that taught by Erath in order to have a means for increasing the accuracy and precision of the holes as the support device would have eliminated the need for the operator to both hold the drilling device and manipulate the centering device.

Allowable Subject Matter

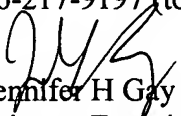
10. Claims 26-35 are allowed.

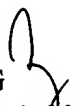
Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer H Gay
Primary Examiner
Art Unit 3672


JHG
May 4, 2006